

# OWNER'S MANUAL

- ASSEMBLY
- OPERATION
- MAINTENANCE
- PARTS LIST

Model Nos.

2 CYCLE	—
4 CYCLE	—

117-011A

117-020A

117-011-300

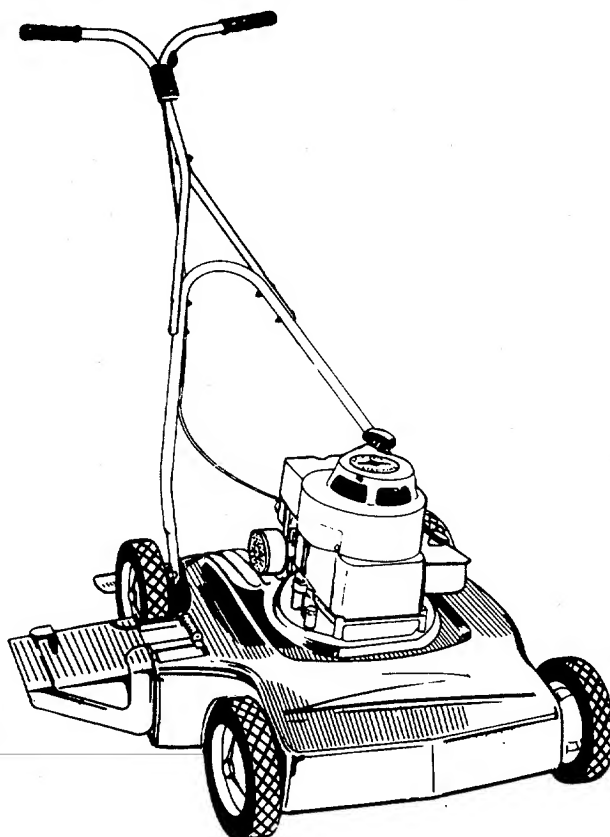
117-020-300

3 HP  
 Engine, 4 cycle B&S Rewind Start  
 THROTTLE ON HANDLE  
 WHEELS 18" 6" x 1.50"  
 WHEELS 4-MANUAL 3/4" to 3"

## Important:

Read Safety Rules and  
 Instructions Carefully

18"  
 ROTARY  
 MOWERS



# **IMPORTANT**

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

## **SAFE OPERATION PRACTICES FOR WALK-BEHIND MOWERS**

### **TRAINING**

1. Read the Operating and Service Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
2. Never allow children to operate a power mower. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
3. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction.

### **PREPARATION**

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Do not wear loose fitting clothing that could get caught on the mower.
4. Check the fuel before starting the engine. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. Never attempt to make a wheel or cutting height adjustment while the engine is running.
7. Mow only in daylight or in good artificial light.
8. Never operate the equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk, never run.

### **OPERATION**

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
3. Stop the blade(s) when crossing gravel drive, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, 2

thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop the engine whenever you leave the mower, before cleaning the mower housing, and when making any repairs or inspections.
7. When cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
8. Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
9. Do not run the engine indoors.
10. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
11. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
12. Always disconnect electric mowers (line operated) before cleaning, repairing or adjusting.
13. Never operate mower without proper guards, plates or other safety protective devices in place.
14. Keep washout ports and other mower-housing service openings closed when mowing.

### **MAINTENANCE AND STORAGE**

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
5. Check the grass catcher bag frequently for wear or deterioration. For safety protection replace only with new bag meeting original equipment specifications.



### CAUTION

Please note that the chute deflector on your mower is in an upright position. It is held in that position by a shipping block. This block is used for shipping purposes only. It must be removed and discarded before your mower is put into operation.



Chute Deflector

Shipping Block to be Removed

## ASSEMBLY

Your new mower is shipped preassembled with the exception of the handle.

1. Remove lawn mower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.

2. If mower is equipped with throttle control extend throttle control assembly which is attached to engine at the rear of the mower and place on the floor.



### CAUTION

Do not bend or kink control wires.



### NOTE

Two cycle engine are constant speed engines—some engines have manual friction control on the engine. These engines require no remote throttle control.

3. Assemble the upper and lower handle parts with cap screws and locknuts provided in parts bag. On mower with throttle control, use the longer (yellow) screw to attach throttle control.



### NOTE

It may be necessary to bend the ends of the lower handle inward slightly to assure a snug fit against the deck mounting area.

4. Holes at the bottom of the lower handle are to be fitted over studs located in front of each rear wheel mounting position.
5. Secure throttle control wire to lower right handle with cable clips.

6. Slip hand grips on the upper end of each handle. They will slip on more easily if you first soak them in warm soapy water.
7. Place shoulder bolt (1) through wheel (B). See Figure 1.
8. Place crown side of belleville washer (C) towards the wheel (away from deck). See Figure 2.
9. Using a 3/4" wrench secure wheel to deck.

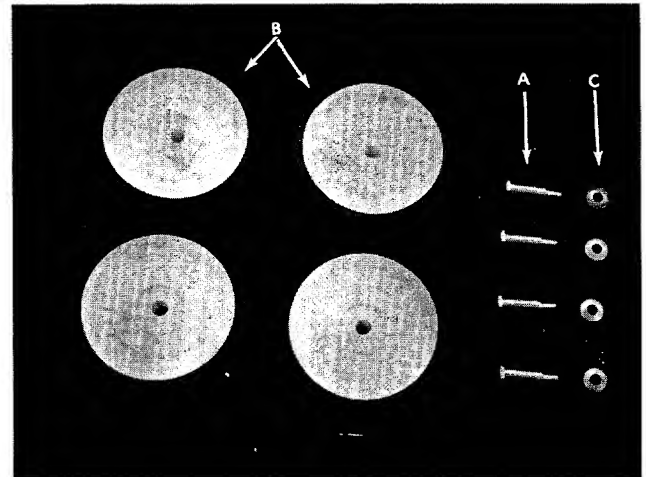


FIGURE 1



### NOTE

Tighten shoulder bolt enough to slightly compress the belleville washer. DO NOT COMPLETELY compress washer.

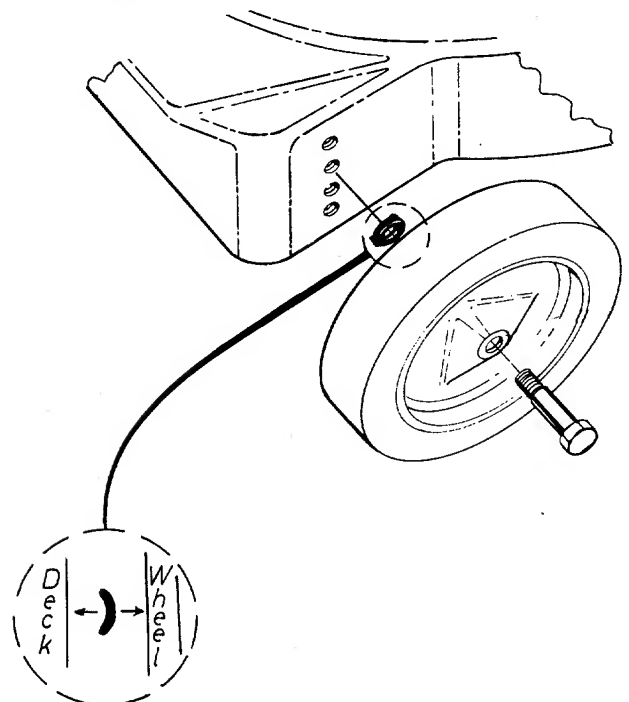


FIGURE 2

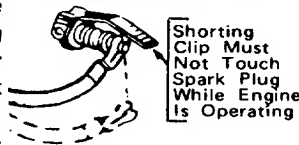
10. Check ALL nuts and bolts for correct tightness.

# OPERATION

For shipping purposes, the wheels on your mower are generally set in the upper mounting holes. Relocating the wheels to the second holes from the bottom will give better mowing results in most cases. When changing wheel positions, be sure Belleville washers are assembled properly. (See cutting height instructions.)

1. Service engine with gas and oil. See Engine Manual packed with lawn mower for complete instructions for the care and maintenance of engine. **Read Directions carefully.**
2. When ready to start engine, place throttle control lever on handle in "START" position and start engine in accordance with instructions in engine manual. After engine starts, move throttle control lever on handle to desired engine speed. The engine is stopped by placing control lever on handle in the "STOP" position.

Two cycle engines are constant speed engines. No throttle control is required. The engine is stopped by moving the spark plug shorting lever against the tip of the spark plug. Be sure this is moved away before starting the engine.



3. Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.

## ADJUSTMENTS



### CAUTION

Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

### CUTTING HEIGHT

Adjustment may be made by removing and moving wheel studs to desired position. Cutting heights will be raised as wheel studs are moved to a lower hole and lowered as wheel studs are moved to a higher hole in the deck. All wheel studs must be mounted in a relative position to the deck.

### THROTTLE (OPTIONAL)

If adjustment becomes necessary, the throttle control wire assembly can be reset as follows:

1. Loosen, but do not remove, screw securing throttle control wire assembly at engine.

2. Move throttle control lever on handle to "FAST" position.
3. Move lever, to which control wire is fastened at engine, to full open position and retighten screw to secure throttle control wire assembly.

**Throttle** — Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil (SAE No. 10 or 20) for ease of operation.

## LUBRICATION

### 2-CYCLE ENGINE

**Fuel and oil Ratio:** Break-in: Mix  $\frac{3}{4}$  pint of oil per one gallon of gasoline for first five hours of operation. Thereafter, mixture can be  $\frac{1}{2}$  pint of oil per gallon of gasoline. Use SAE 30, MM or MS, or outboard oil and regular gasoline. Mix and store fuel-oil mixture in a clean, tight fuel container. Low grade white premium or ethyl grades of gasoline are not to be used. White marine gasoline is acceptable.



### CAUTION

Be sure fuel is fresh and remix by shaking container prior to filling engine fuel tank.

**Fuel-Oil Mixture:** Warranty void if multiviscosity (10W-30) oils are used. Use only SAE 30, outboard or two-cycle oil with regular grade gasoline.

### 4-CYCLE ENGINE

Change oil after first 5 hours of operation while engine is warm. Thereafter, change oil every 25 hours of operation while engine is warm. Engine may be drained through oil filler opening. Be sure to replace drain plug and oil filler cap.



### IMPORTANT

Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

**Wheels**—Wheel bearings are of self-lubricating Fortiflex. They require no lubrication. If your unit is provided with optional ball bearing wheels, lubricate at least once a season with light oil.

**Protective Shield** — The pivot points on the protective shield should be lubricated periodically with light oil to prevent any rust or binding.

**Chute Deflector** — The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

**Engine** — Follow engine manual for lubrication instructions.

# MAINTENANCE

## CUTTING BLADE

The blade may easily be removed for grinding or replacement as follows:

1. Remove bolt and lock washer holding blade and blade adapter to engine crankshaft.
2. Remove blade and blade adapter from engine crankshaft.
3. Remove two bolts, lock washers and nuts holding blade to blade adapter (if necessary).

When sharpening blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

**Deck**—The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower forward or on its side and scraping clean with a suitable tool or by washing with a stream of water from a garden hose.



### CAUTION

Do not direct the stream of water at a hot engine as damage to the engine may result.

# STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the preceding instructions.
2. Refer to Engine Manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Place blocks under deck to raise tires clear of floor.
5. Store mower in a dry, clean area.

# USING YOUR ROTARY MOWER

For the best results do not cut wet grass because it tends to stick to the underside of the mower, thus preventing proper discharge of grass clippings. If wet grass must be cut, reduce walking speed to help distribute the clippings more effectively.

New grass should be treated as wet grass, otherwise a normal walking speed is about the right pace for efficient mowing.

The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion then recut at right angles to first direction.

Lawn should be cut in the fall as long as there is growth.



#### NOTE

The manufacturer DOES NOT recommend the use of any accessory on this Rotary Mower other than those manufactured by MTD Products Inc.

GRASS CATCHER Model No. 197-003A is available as optional equipment for the mowers shown in this manual.



1. The mower should not be operated without the entire grass catcher or chute deflector in place.
2. The mower should not be operated without the protective shield on the rear of the deck in place.



#### NOTE:

Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-0119.



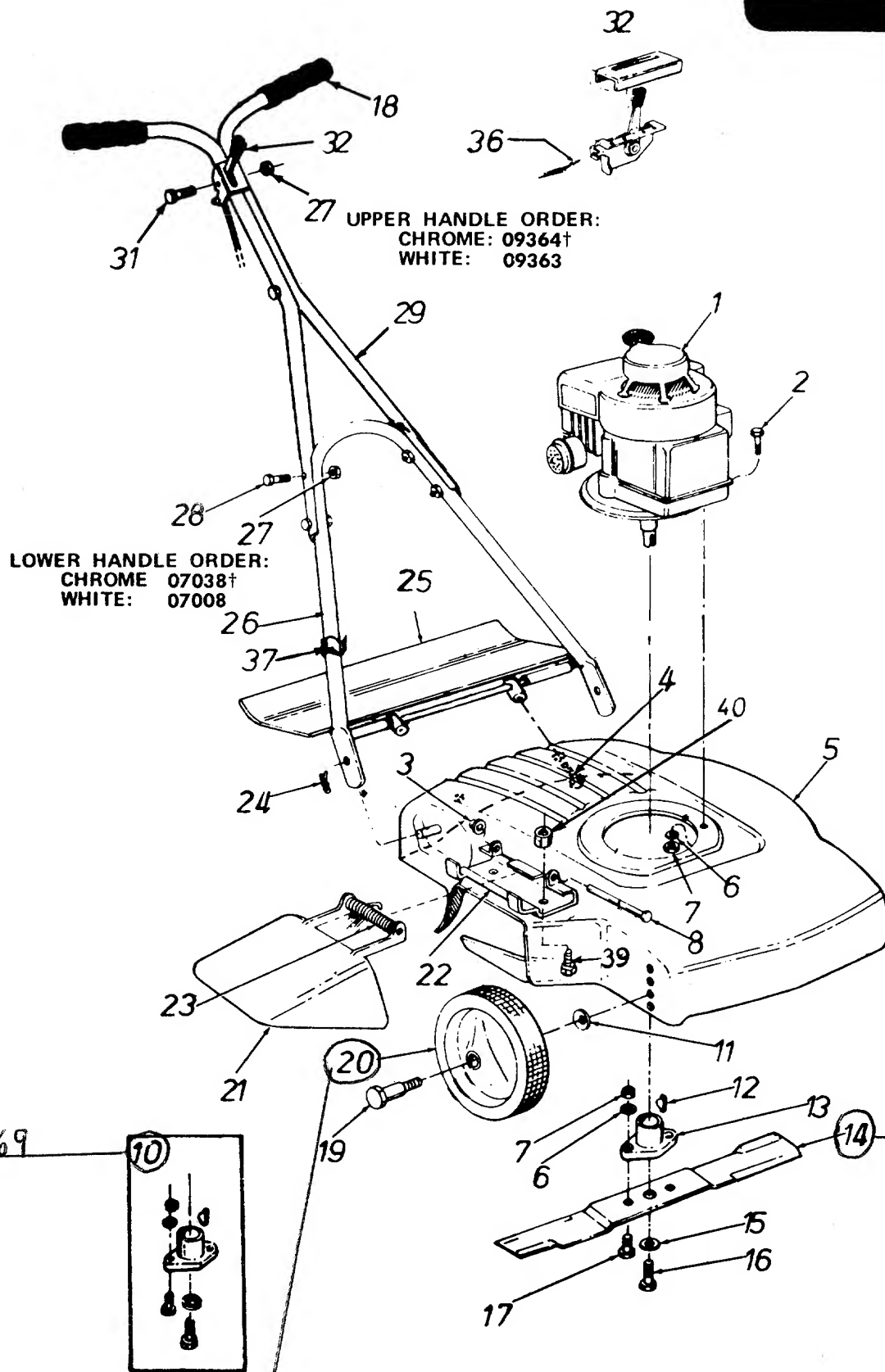
#### IMPORTANT

After striking a foreign object, stop the engine, remove wire from spark plug. Thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

# NOTES

117-011A  
117-020A

IF YOU WRITE TO US ABOUT THIS ARTICLE  
OR IF YOU ORDER REPLACEMENT PARTS AL-  
WAYS MENTION THIS MODEL & SERIAL NO  
MODEL



117-011A - 734-0481

117-020A - 734-0481



# **PARTS LIST FOR MODEL 117-011A AND 117-020A**

Ref. No.	Part No. 117-011A	Part No. 117-020A	Description	New Part	Ref. No.	Part No. 117-011A	Part No. 117-020A	Description	New Part
1	2 Cycle	4 Cycle	Engine		20	734-0481	734-0481	Wheel Ass'y.—	
2	710-0237	710-0158	Hex Scr. 5/16-24 x 1 1/4" Lg.*		21	11681—463	11681—463	Complete Chute Deflector Assembly	
3	726-0106	726-0106	Push-on Flange Palnut		22	11130—463	11130—463	Adapter Plate	
4	710-0567	710-0567	Hex Scr. 1/4-28 x .62" Lg.		23	732-0253	732-0253	Torsion Spring	
5	11402—463	11402—463	Deck Ass'y.—Complete		24	714-0104	714-0104	Hair Pin Cotter	
6	736-0119	736-0119	L-Wash. 5/16" Scr.*		25	11190—463	11190—463	Protective Shield Ass'y. Comp.	
7	712-0123	712-0123	Hex Nut 5/16-24 Thd.*		26	07008	07008	Lower Handle	
8	711-0555	711-0555	Pivot Pin		27	712-0107	712-0107	Hex Cent. L-Nut 1/4-20 Thd.	
10	10769	10769	Blade Adapter Kit		28	710-0106	710-0106	Hex Scr. 1/4-20 x 1 1/4" Lg.*	
11	736-0105	736-0105	Belleville Wash. 3/8" Scr.		29	09363	09363	Upper Handle (2 Req'd.)	
12	714-0365	714-0365	#6 Hi-Pro Key 5/32 x 5/8" Dia.		31	None	710-0606	Hex 1/4-20 x 1 1/2" Lg.*	
13	10769	10769	Blade Adapter Kit		32	None	11601	Throttle Control Ass'y. Comp.	
14	742-0121	742-0121	18 inch Blade		36	None	746-0228	Conduit and Wire	
15	736-0217	736-0217	L-Wash. 3/8" Scr. H.D.		37	None	746-0145	Cable Clip	
16	710-0459	710-0459	Hex Scr. 3/8-24 x 1 1/2" Lg.		39	710-0289	710-0289	Hex Scr. 1/4-20 x .50" Lg.*	
17	710-0117	710-0117	Hex Scr. 5/16-24 x 1" Lg.		40	712-0107	712-0107	Hex Cent. L-Nut 1/4-20 Thd.	
18	07071	07071	Grip						
19	738-0213	738-0213	Axle Bolt						

\*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(463—Top Flite Red)

When ordering parts if color or finish is important, use the appropriate color code shown at left. (e.g. Top Flite Red Finish—11402 (463) )

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

NOTE: The engine is not under warranty by the mower manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."







# PARTS INFORMATION

## POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

<b>ALABAMA</b>	<b>BIRMINGHAM</b>	
	Auto Electric & Carburetor Co.	2625 4th Ave. S. .... 35233
<b>ARKANSAS</b>	<b>NORTH LITTLE ROCK</b>	
	Sutton's Lawn Mower Shop	..... Rt. 4, Box 368 ..... 72117
	<b>FORT SMITH</b>	
	Mity Mite Motors, Inc.	..... 2515 Towson Ave. .... 72901
<b>CALIFORNIA</b>	<b>SAN BERNARDINO</b>	
	Lawn Mower Supply Co.	..... 25608 E. Baseline .... 92410
	<b>SAN FRANCISCO</b>	
	J.W. Jewett Co.	..... 981 Folsom St. .... 94107
	<b>SACRAMENTO</b>	
	Luttig & Severson	..... 2030 28th St. .... 95818
<b>COLORADO</b>	<b>DENVER</b>	
	South Denver Lawn Equip.	..... 527 West Evans ..... 80223
<b>CONNECTICUT</b>	<b>SUFFIELD</b>	
	The Jones & Ramsey Co.	..... 850 Thompsonville Rd. 06078
<b>FLORIDA</b>	<b>JACKSONVILLE</b>	
	Radco Distributors	..... 2403 Market St. .... 32206
	<b>CORAL GABLES</b>	
	Moz-All of Florida, Inc.	..... 365 Greco Ave. .... 33146
<b>GEORGIA</b>	<b>EAST POINT</b>	
	East Point Cycle & Key	..... 2834 Church St. .... 30344
<b>ILLINOIS</b>	<b>LYONS</b>	
	Keen Edge Co.	..... 8615 Ogden Ave. .... 60534
<b>INDIANA</b>	<b>ELKHART</b>	
	Parts & Sales Inc.	..... 2101 Industrial Pkwy. ..46514
<b>IOWA</b>	<b>DUBUQUE</b>	
	Power Lawn & Garden Equip.	..... 2551 J.F. Kennedy .... 52001
<b>KANSAS</b>	<b>WICHITA</b>	
	Hixon, Inc.	..... 3030 Mascot ..... 67204
<b>LOUISIANA</b>	<b>NEW ORLEANS</b>	
	Suhren Engine Co.	..... 8330 Earhart Blvd. .... 70118
<b>MARYLAND</b>	<b>TAKOMA PARK</b>	
	Center Supply Co.	..... 6867 New Hampshire Ave. 20012
<b>MASSACHUSETTS</b>	<b>SPRINGFIELD</b>	
	Morton B. Collins Co.	..... 300 Birnie Ave. .... 01107
<b>MICHIGAN</b>	<b>MOUNT CLEMENS</b>	
	Power Equipment Dist.	..... 36463 South Gratiot... 48043
	<b>LANSING</b>	
	Lorenz Service Co.	..... 2500 S. Pennsylvania.. 48900
<b>MINNESOTA</b>	<b>MINNETONKA</b>	
	Hance Distributing Inc.	..... 11212 Wayzata Blvd. ..55343
<b>MISSISSIPPI</b>	<b>BILOXI</b>	
	Biloxi Sales & Service, Inc.	..... 506 Caillavet St. .... 39533
<b>MISSOURI</b>	<b>KANSAS CITY</b>	
	Automotive Equip. Service	..... 3117 Holmes St. .... 64109
	<b>ST. LOUIS</b>	
	Henzler, Inc.	..... 2015 Lemay Ferry Rd. 63125
<b>NEW YORK</b>	<b>CARTHAGE</b>	
	Gamble Dist., Inc.	..... West End Ave. .... 13619
	<b>SYRACUSE</b>	
	Kimber's, Inc.	..... 115 N. Geddes St. .... 13204

## BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines* — *Gasoline*, Briggs & Stratton or Tecumseh Lauson —

<b>NORTH CAROLINA</b>	<b>GREENSBORO</b>	
	Dixie Sales Company	..... 327 Battleground Ave.. 27402
	<b>GOLDSBORO</b>	
	Smith Hardware Co.	..... 515 N. George St. .... 27530
<b>OHIO</b>	<b>WADSWORTH</b>	
	National Central	..... 687 Seville Rd. .... 44281
	<b>CLEVELAND</b>	
	Bleckrie, Inc.	..... 7900 Lorain Ave. .... 44102
	<b>CARROL</b>	
	Stebe's Mid-State Mower Supply Box 366	..... 43112
	<b>WILLARD</b>	
	Sunshine Wholesale Tire Outlet Route 224	..... 44890
	<b>MANSFIELD</b>	
	McClure Lawn & Garden Supply	..... 1114 Lexington Ave. . 44903
<b>OKLAHOMA</b>	<b>MUSKOGEE</b>	
	Victory Motors, Inc.	..... 605 S. Cherokee ..... 74401
	<b>ADA</b>	
	Ada Auto Supply	..... 301 E. 12th St. .... 74820
<b>OREGON</b>	<b>PORTLAND</b>	
	Kenton Supply Co.	..... 8216 N. Denver Ave. . 97217
<b>PENNSYLVANIA</b>	<b>LANCASTER</b>	
	Raub Supply Co.	..... James & Mulberry Sts... 17604
	<b>PITTSBURGH</b>	
	Bluemont Co.	..... 11125 Frankstown Rd.. 15235
<b>TENNESSEE</b>	<b>KNOXVILLE</b>	
	Master Repair Service	..... 2423 Broadway, N.E. ...37917
	<b>MEMPHIS</b>	
	Memphis Cycle & Supply Co.	..... 421 Monroe Ave. .... 38103
	American Sales & Service, Inc.	..... 1922 Lynnbrook ..... 38116
<b>TEXAS</b>	<b>DALLAS</b>	
	Marr Brothers, Inc.	..... 423 E. Jefferson ..... 75203
	<b>HOUSTON</b>	
	Bullard Supply Co.	..... 2409 Commerce St. .... 77003
	<b>SAN ANTONIO</b>	
	Catto & Putty, Inc.	..... P.O. Box 2408 ..... 78206
	<b>FORT WORTH</b>	
	Woodson Sales Corp.	..... 1702 N. Sylvania ..... 76111
<b>UTAH</b>	<b>SALT LAKE CITY</b>	
	A-1 Engine & Mower Co.	..... 437 E. 9th St. .... 84111
<b>VERMONT</b>	<b>BURLINGTON</b>	
	Vermont Appliance Co.	..... 44 Lakeside Ave. .... 05401
<b>VIRGINIA</b>	<b>RICHMOND</b>	
	RBI Corp.	..... 963 Myers St. .... 23260
<b>WASHINGTON</b>	<b>SEATTLE</b>	
	Bailey's Rebuild, Inc.	..... 1325 E. Madison St. ...98102
<b>WEST VIRGINIA</b>	<b>CHARLESTON</b>	
	Young's, Inc.	..... 233 Virginia St., E. ... 25301
<b>WISCONSIN</b>	<b>APPLETON</b>	
	Automotive Supply Co.	..... 123 S. Linwood Ave. ..54911

## WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

### CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.